REMARKS

This is in response to the Office Action mailed on August 22, 2007. In this Office Action, claims 1-30 were rejected. Claims 1-2, 6-17 and 20-24 were rejected under 35 U.S.C. 102(b) as being anticipated by Shinyma et al. "Automatic Paraphrase Acquisition from News Articles", Proceedings of Human Language Technology Conference; June 2002. Referred to as Shinyama hereinafter. Claims 3 and 25-30 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shinyama. Claims 4-5 and 19-30 were rejected under 35 U.S.C. §103(a) over Shinyama in view of Gibson et al. (US Publication No. 2003/0033279 A1). Claim 9 was also objected to as missing a period. In this response, claim 9 has been amended to include a period and all other claims have remained unamended.

The present application is a system for processing paraphrases using machine translation techniques. As pointed out on pages 18-22 of the specification, a clustering system identifies articles in a document database that are generally written about the same event. The related articles are then grouped together into a cluster. Once a cluster is identified text segments are then extracted from the articles. In one embodiment, the first one to two sentences of related articles are extracted. These text segments are then output to a word/phrase alignment system or a textual alignment system. Frequently, these set of sentences are observed to differ only in small ways, such as the order of the clauses appearing in the sentence. The textual alignment system can operate on large sets of sentences by extracting mappings between words or phrases based on a holistic examination of sentences in the set. In one embodiment, the word/phrase alignment system implements a conventional, word/phrase alignment algorithm in an attempt to learn lexical correspondences between the sentences in the sets. This results in correspondence between words and multiple word phrases in the sentences, after the words and phrases have been aligned according to the alignment system. The alignment algorithm establishes links between the different, but parallel, pieces of information. As shown in FIG. 4 of the specification, this can be illustrated through lines which connect various words and phrases together. As more data is acquired, the links between incorrect correspondences will fade.

The Office Action rejected claim 1 as being anticipated by Shinyama. In particular, the Office Action indicated on page 3 that "using textual alignment to identify paraphrase relationships between texts in the text segments in the set" is taught at page 2, section 3.1 of Shinyama ("in this stage we use a TF/IDF based method"). As pointed out on page 2 of section 3.1, second paragraph of Shinyama, paraphrase acquisition occurs as follows. First articles of certain domain from two newspapers are required. Next, an information retrieval system is used to obtain a pair of articles from a given class of events. An example of an event could be a "murder" or "personnel affairs". Then, pairs of articles which report the same event are found. At that stage, Shinyama uses a TF/IDF based method, which is developed for topic detection and tracking (TDT). Next, all the sentences in each article are compared to find sentences sharing comparable named entities. Then, a dependency tree is used to extract appropriate portions of sentences. Several more steps occur before a pair of phrase relationships is completely built.

The TF/IDF based method in Shunyama is used to find pairs of articles which report the same event. This is markedly different than using textual alignment to identify paraphrase relationships between the text segments in the set. The TF/IDF based method discussed in Shinyama, is used for categorization of newspaper articles, not for a method of textual alignment to identify paraphrase relationships as illustrated in figure 4 of the present application. It is therefore submitted that for this reason, independent claim 1 is in form for allowance.

Claim 17 is directed towards a paraphrase processing system which comprises a textual alignment component configured to receive a set of text segments and identify paraphrase relationships between the words in the text segments based on alignment of the words.

Claim 17 was rejected under 35 U.S.C. §102(b) as being anticipated by Shinyama, in view of Gibson. Specifically, the Examiner asserts that a textual alignment component is cited at page 2 of section 3.1 of Shinyama ("in this stage we use a TF/IDF based method"). It is submitted that based upon the above arguments, the TF/IDF based method is not the same as a textual alignment component.

Independent claim 30 was also rejected under 35 U.S.C. §103(a) as being unpatentable over Shinyama. It was noted that claim 30 was rejected as being similar in scope and content to that of claims 17 and 29 and is therefore rejected under the same rationale. However, the paraphrase processing system of claim 30 includes a textual alignment component. As discussed in the above paragraphs, a textual alignment component in the current application is not the same as a TF/IDF based method discussed in Shinyama. It is therefore respectfully submitted that claim 30 is in form for allowance by at least this reason.

It is therefore respectfully submitted that independent claims 1, 17 and 30 are in form for allowance and their depending claims are as well. Reconsideration and allowance of claims 1-30 are respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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